


T&E Committee #4
July 21, 2014

Briefing

MEMORANDUM

July 18, 2014

TO: Transportation, Infrastructure, Energy & Environment Committee

FROM:  Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Briefing: WSSC's Rate Study Report and Affordability Program Expansion Plan**

Attachments to this Memorandum

WSSC Presentation Slides (©1-21)

Water and Sewer Rate Study - Executive Summary Report (©22-32)

WSSC Rate Increase History and Revenue and Expenditure Trends (©33-35)

Chris Cullinan, WSSC's Acting Chief Financial Officer, will provide a presentation to the Committee summarizing the recommendations of the Bi-County Infrastructure Working Group (endorsed by the WSSC Commissioners earlier this year) with regard to WSSC's Rate Study Report (including the creation of a new infrastructure fee and updating of the account maintenance fee) and WSSC's latest work in the development of a new affordability program.

Background

In January, the Municipal & Financial Services Group, in association with PEER Consultants, P.C., completed a Water and Sewer Rate Study for WSSC. This rate study was initiated as a result of recommendations from the Bi-County Infrastructure Working Group.¹ These recommendations were endorsed in concept by the group (and in March by the WSSC Commissioners).

¹ The Bi-County Infrastructure Working Group includes representatives from the Montgomery and Prince George's Council Staffs, Executive staff from both counties, WSSC staff, and WSSC Commissioner Gene Counihan from Montgomery County and now former WSSC Commissioner Antonio Jones from Prince George's County.

The Bi-County Infrastructure Working Group was formed in 2010 to consider how best to finance WSSC's major infrastructure recapitalization needs while managing debt and minimizing rate increases. With consultant support, the Working Group worked to identify strategies to:

- Minimize operating and capital costs
- Embrace effective financing policies
- Select an optimal revenue and rate structure
- Implement an effective financial strategy

Some recommendations of the Working Group have already been implemented, most notably changing the term for WSSC's newly issued debt from 20 years to 30 years and utilizing a portion of the debt service savings from this change to increase annual PAYGO levels.

The Working Group has also studied potential changes to the existing way water and sewer extensions are currently financed. The WSSC Commissioners were briefed on July 16 on the results of this work. Council Staff expects to bring this subject back to the Council for discussion in the context of the County's next comprehensive update to its Ten Year Water and Sewer Plan.

Infrastructure Fee and Account Maintenance Fee Changes

In conjunction with previous Working Group recommendations, the Working Group also asked WSSC to look at its current volumetric rate structure and account maintenance fee, options for creation of a new infrastructure fee, and the potential creation of a new customer affordability program. The consultant report from January looked at these issues and made recommendations to update the account maintenance fee and create a new infrastructure fee. The consultant did not recommend any changes to the volumetric rate structure at this time.

Currently, WSSC relies on its volumetric water and sewer fees for about 95 percent of its revenue. However, over the past decade, water production has been flat, even as the population served in the water and sewer district has increased by about 10 percent. This steady reduction in per capita water usage has resulted in reduced revenue for WSSC which is compounded by WSSC's graduated rate structure.² Given this continuing trend, the Working Group agreed that a revenue structure that included a larger mix of fixed fees should be considered.

The Working Group supported the consultant recommendation to recalculate the existing account maintenance fee (the fee has not been adjusted since its inception in the 1990s) to ensure the fee covers targeted costs and to implement a new infrastructure fee (to cover a portion of WSSC's water and sewer reconstruction needs) based on meter size (see ©4). **These issues (along with the Affordability program discussed later) are the subject of this T&E Committee briefing.**

² WSSC's graduated rate structure has a strong water conservation incentive, since ratepayers pay a higher rate for every gallon used as their average daily consumption moves up to the next tier.

In both cases, the Working Group recommended that the new revenue structure should be “revenue neutral” in that any additional revenue obtained from the changes in fixed fees should be offset by reductions in the volumetric fees. However, whenever changes are made in the mix of revenues collected, various ratepayers are affected differently (with some ratepayers seeing overall increases in their bill and other ratepayers seeing decreases in their bills). Mr. Cullinan will provide some examples of these impacts as part of the WSSC presentation.

The Working Group also agreed with the consultant recommendation to not consider broader changes to the volumetric rate structure at this time, but that a review of the rate structure should be considered within the next few years.

Council Staff is supportive of the account maintenance fee recalibration and the new infrastructure fee.

It is important for Committee members to keep in mind that any rate increase assumptions for the FY16 budget for volumetric rates as well as the infrastructure and account maintenance fee will be reviewed by the Council as part of the spending control limits process later this fall and adopted jointly by the Montgomery and Prince George’s County Councils in May of next year. While the actual rates will be decided later, WSSC needs to make assumptions about these overall structural changes to its revenues as part of its long-term fiscal planning going forward into the FY16 budget process.

Affordability Program

WSSC ratepayers have experienced substantial annual rate increases over the past twenty years and especially over the past decade. The compounded consumer price index (CPI) for the region since November 1996 to November 2013 was 53.2 percent, while rates have increased at a compounded amount of 102 percent from FY96 through FY14. For more detail regarding rate increases and revenue and expenditure trends over that time, please see ©33-34.

The fact that ratepayers have experienced these large increases and that WSSC continues to face substantial fiscal challenges led the Working Group to recommend last year that WSSC consider a new customer affordability program to assist WSSC’s lowest income ratepayers (including “direct” ratepayers who pay WSSC directly and “indirect” ratepayers who are served by WSSC but who may pay their utilities indirectly through an association fee or through a landlord).

As part of its FY15 Proposed Budget, WSSC assumed a “customer affordability program” with a write-down of \$2.8 million in rate revenue. As previously noted, this affordability program is an outgrowth of the Working Group’s support for an expanded customer affordability program. The program would allow WSSC customers who qualify for other existing non-WSSC income-based programs to receive a continuing subsidy to offset a portion of their WSSC bill. Currently, WSSC’s only assistance to struggling ratepayers is a small program which allows ratepayers to donate to a fund that is used to provide short-term assistance to WSSC customers.

Enabling State legislation is needed for this new affordability program. Legislation was introduced during the 2014 State Legislative Session but was withdrawn pending further study. Therefore, the new affordability program assumed in WSSC's Proposed FY15 budget could not go forward. Instead, WSSC is working to flesh out the program in more detail and address concerns raised during the legislative session so that a bill can be introduced for the 2015 legislative session.

The creation of an affordability program entails a number of key assumptions, including: how will ratepayer eligibility be determined, how much in total can WSSC devote to such a program, and what will the benefit be? This necessarily requires both "top down" budget considerations as well as a "bottom up" review to define what level of water and sewer costs are "affordable" to ratepayers.³

WSSC's presentation identifies the major assumptions for the program (see ©17-18).

Council Staff is supportive of WSSC's efforts to create a new affordability program to assist its lowest income ratepayers.

Attachments

KML:f:\levchenko\wssc\issues\bi county infrastructure work group\t&e discussion fixed fees and affordability program 7 21 2014.docx

³ Federal "affordability" guidelines and other State programs have typically identified water/sewer affordability based on a percentage (typically one to two percent) of annual water/sewer costs compared to household income, with a focus on household incomes at 100 to 200 percent of Federal poverty guidelines. As an example, a typical WSSC residential customer averaging 210 gallons of water use per day would pay approximately \$989 in FY15. For this amount to be no more than two percent of gross income, a household would have to make about \$49,500 per year. This income is more than 200 percent of the Federal poverty guidelines for a family of four. For households with lower incomes, WSSC's current rates would be considered unaffordable under these guidelines.

Rate Study/Customer Affordability Program

Presented by
Chris Cullinan, Acting CFO
July 21, 2014

Overview

What are we doing?

Why are we doing it?

How were the fees and program determined?

Who will be impacted?

When will it be implemented?

What are we doing?

- Seeking to implement a new fixed, infrastructure reconstruction fee.
- Recalibrate the existing Account Maintenance Fee to fully recoup the costs it is intended to cover.
- Keep the Commission's current, 16 step, conservation-oriented rate structure.
- Seek approval from the General Assembly to implement a more robust Customer Affordability Program (CAP) to mitigate the impacts of the fees on economically disadvantaged customers.

What are we doing? (cont.)

NEW RECONSTRUCTION FEE

<i>Meter Size/Type</i>	<i>Quarterly Fee</i>	<i>Annual Fee</i>	<i># of Meters</i>
5/8"	\$11	\$44	145,330
3/4"	\$12	\$48	240,285
1"	\$14	\$56	47,695
1 1/2" Residential	\$119	\$476	1,944
1 1/2"	\$84	\$336	2,541
2"	\$185	\$740	3,544
3"	\$585	\$2,340	930
4"	\$813	\$3,252	511
6"	\$1,265	\$5,060	137
10"	\$4,425	\$17,700	1
4" Flow Meter	\$499	\$1,996	73
6" Flow Meter	\$616	\$2,464	802
8" Flow Meter	\$2,524	\$10,096	554
10" Flow Meter	\$2,714	\$10,856	103
12" Flow Meter	\$5,214	\$20,856	6

What are we doing? (cont.)

RECALIBRATED, EXISTING ACCOUNT MAINTENANCE FEE

<i>Meter Size/Type</i>	<i>Proposed Quarterly Fee</i>	<i>Current Quarterly Fee</i>	<i>\$ Change</i>	<i># of Meters</i>
5/8" through 3/4" Residential	\$16	\$11	\$5	435,227
1 1/2"	\$24	\$31	(\$7)	2,541
2"	\$27	\$51	(\$24)	3,544
3"	\$66	\$92	(\$26)	930
4"	\$142	\$145	(\$3)	511
6"	\$154	\$237	(\$83)	137
10"	\$246	\$458	(\$212)	1
2" Detector Check	\$33	\$53	(\$20)	244
4" Detector Check	\$177	\$53	\$124	59
6" Detector Check	\$255	\$73	\$182	214
8" Detector Check	\$461	\$197	\$264	94
10" Detector Check	\$633	\$256	\$377	16
4" Flow Meter	\$182	\$145	\$37	73
6" Flow Meter	\$293	\$237	\$56	802
8" Flow Meter	\$452	\$379	\$73	554
10" Flow Meter	\$682	\$458	\$224	103
12" Flow Meter	\$989	\$458	\$531	6

What are we doing? (cont.)

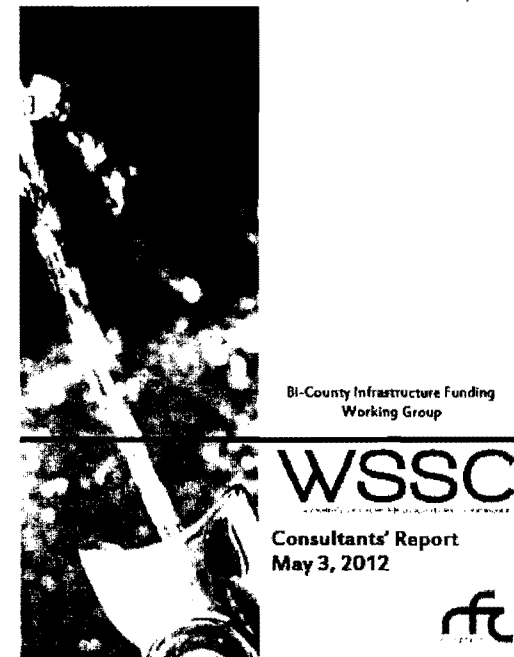
- Proposed fees will be used to fund **existing** water and sewer pipe replacement programs from Commission's **approved** Capital Improvements Program.
 - ✓ Fees will not be used to fund new personnel or programs or operating expenses.
- The proposal is revenue neutral:
 - ✓ Reconstruction fee revenues will replace rate revenue to fund these pipe programs.
 - ✓ Costs associated with the Account Maintenance Fee will be funded with these fees and not subsidized with rate revenues.

Why are we doing it?

- Stabilize the Commission's revenues.
- Lower the trajectory of future rate increases.
- Ensure a stream of dedicated revenues to fund the Commission's water and sewer pipe replacement programs.
- More equitably fund the Commission's infrastructure needs.

Why are we doing it? (cont.)

- Both are recommendations of Bi-County Infrastructure Funding Working Group, which was comprised of representatives from the executive and legislative branches of the two counties, one WSSC Commissioner from each county, and WSSC staff.
- Consultant interviewed internal utility stakeholders (WSSC Staff and Commissioners) as well as external stakeholders (Prince George's and Montgomery County elected officials) to incorporate their opinions on the direction of the Working Group's efforts.



Why are we doing it? (cont.)

- Consultant polled the Working Group to prioritize pricing objectives to evaluate revenue alternatives.

- Based on the pricing objectives, the new graduated fixed charge achieved the most number of pricing objectives.

- Consultant recommended, and the Working Group approved:

- ✓ The development of a new fee in the context of a full, cost-of-service and rate study
- ✓ A more robust Customer Affordability Program

Pricing Objectives	Current Rates	New Franchise Tax	New Uniform Volumetric Charge	New Graduated Fixed Charge
Financial Sufficiency	0	0	0	+
Defensibility	—	—	+	+
Revenue Stability	—	—	+	+
Rate Stability	0	0	0	0
Affordability to Disadvantaged Customers	+	+	—	—
Minimization of Customer Impacts	+	+	—	+
Cost of Service-based Allocations	—	—	+	+
Stakeholder Input	0	0	0	0
Industry Standard Practices	—	—	+	+

+: Contributes to achieving pricing objective
 0: Neutral in achieving pricing objective
 -: Detracts from achieving pricing objective

How Were the Fees Determined?

- Cost of service and fee study completed by Municipal & Financial Services Group (MFSG) of Annapolis.
 - ✓ Consultant selected through competitive, RFP process
- Study utilized a cost of service approach based on the revenue requirements to fund the Commission's operations and capital program over a ten year planning horizon.
- Key findings:
 - ✓ Commission's experience mirrors national trends among other utilities
 - ✓ Commission is highly dependent on operating revenues from water and sewer rates (approximately 96%)
 - ✓ As a result, WSSCs revenues are highly dependent on water consumption which continues to decline and are subject to a high level of volatility
 - ✓ The Account Maintenance Fee, originally introduced in the 1990's, has not been adjusted in magnitude or structure since its inception

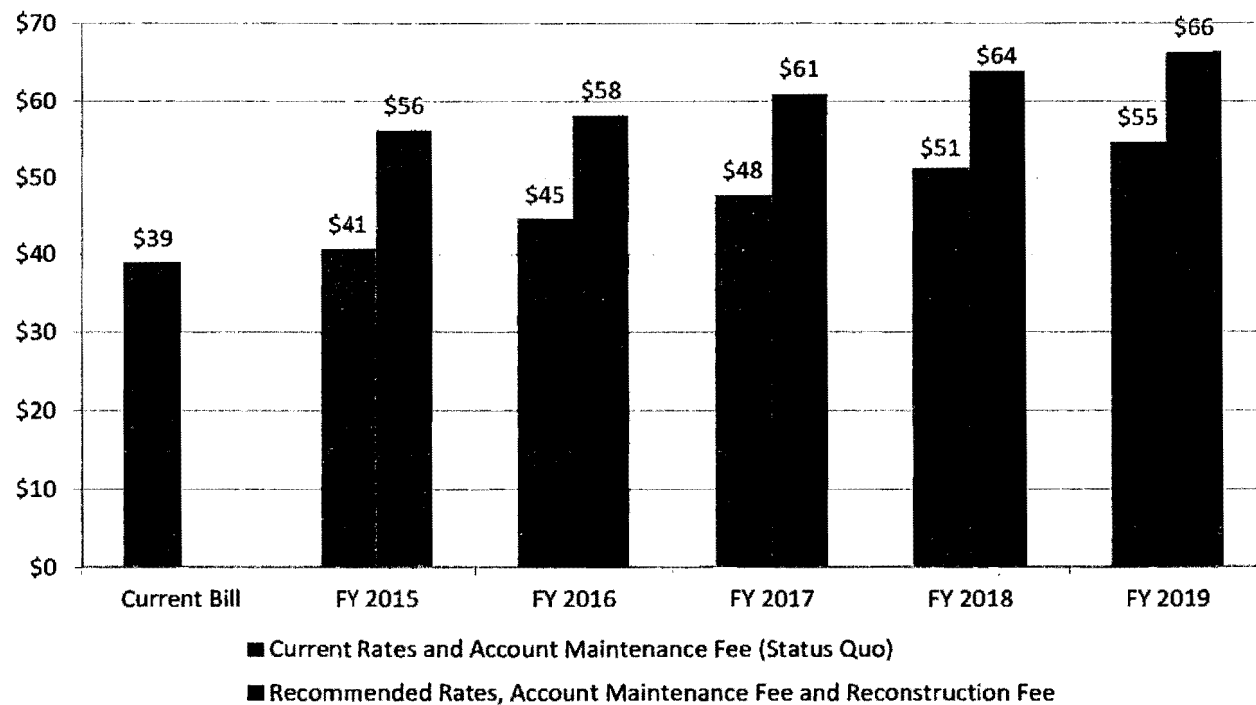
How Were the Fees Determined? (cont.)

- Recommendations

- ✓ A fixed reconstruction fee will provide a stable stream of revenue to fund the debt service associated with line reconstruction.
- ✓ The reconstruction fee is assessed by meter size using the average usage by meter size as the basis for the differential between meter sizes. This approach will appropriately allocate the cost of reconstruction based on the customer's share of reconstruction costs.
- ✓ The reconstruction fee is based on the average cost of debt service over the next five years, allowing for a reconstruction fee that will remain the same for a five year period. This approach will provide predictability for WSSC and the customer over a five year period and increase the portion of WSSCs revenues that are fixed.
- ✓ Commission adopt a cost of service based AMF that will recover the five-year average cost of providing account maintenance services and fire protection.

Who will be impacted?

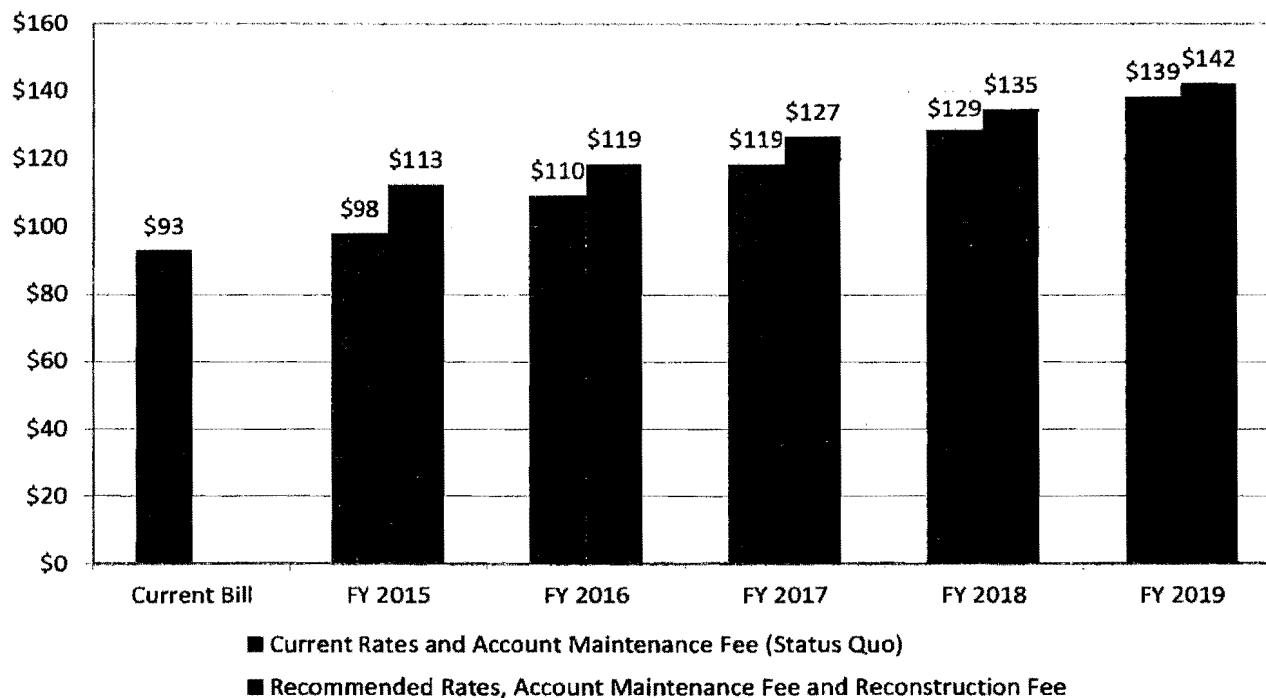
Residential Quarterly Bill
5/8" Meter - Average 45 gallons per day
(Rate Tier: 0 - 49 gallons per day)*



*7.4% of residential customers fall into this tier

Who will be impacted? (cont.)

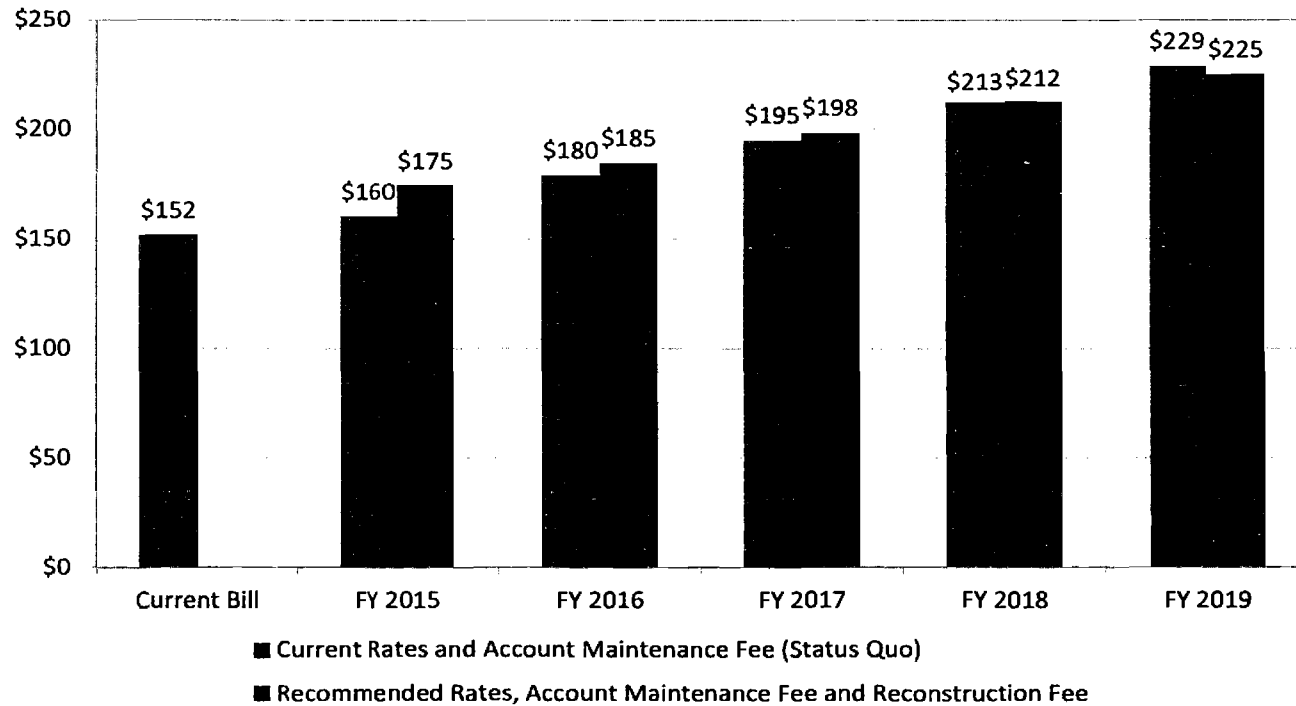
Residential Quarterly Bill 5/8" Meter - Average 100 gallons per day (Rate Tier: 100 - 149 gallons per day)*



*25.2% of residential customers fall into this tier

Who will be impacted? (cont.)

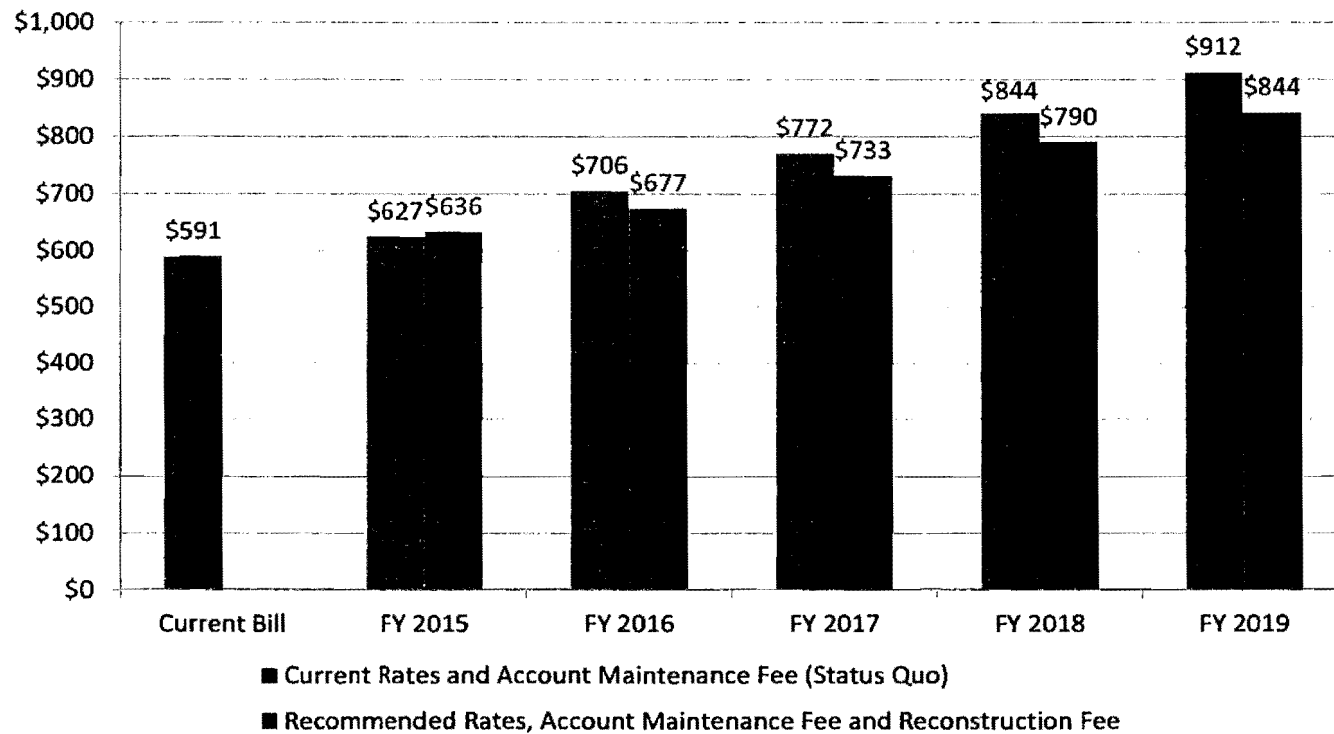
Residential Quarterly Bill 5/8" Meter - Average 150 gallons per day (Rate Tier: 150 - 199 gallons per day)*



*19.3% of residential customers fall into this tier

Who will be impacted? (cont.)

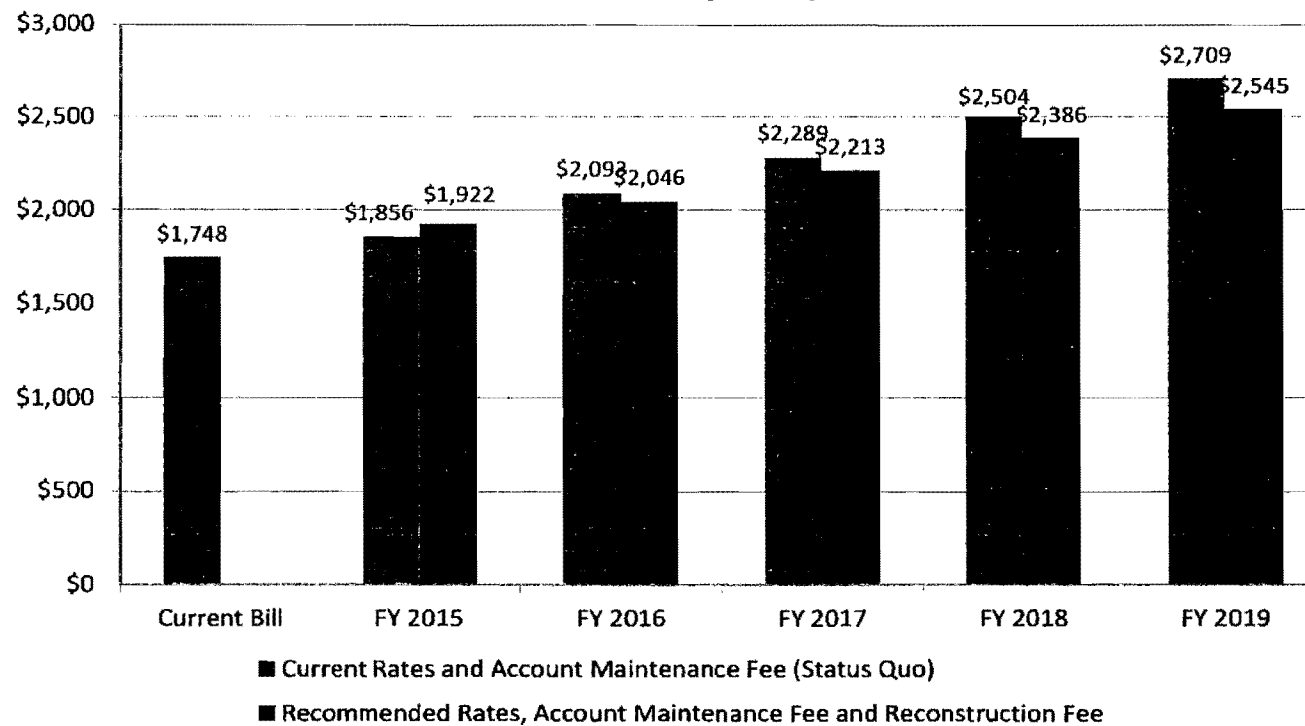
Commercial Quarterly Bill 1" Meter - Average 445 gallons per day (Rate Tier: 400 -449 gallons per day)*



*2.1% of commercial customers fall into this tier

Who will be impacted? (cont.)

Commercial Quarterly Bill 1 1/2" Meter - Average 1,200 gallons per day (Rate Tier: 1,000 - 3,999 gallons per day)*



*16.9% of commercial customers fall into this tier

Who will be impacted? (cont.)

Customer Affordability Program

- Some portion of the Reconstruction Fee and Account Maintenance Fee would be waived for eligible home-owners and renters.
- WSSC would partner with another state or local agency to determine eligibility.
- Customers would still be responsible for paying for water and sewer service they use.
- WSSC would offer conservation and water saving tips to eligible customers so that they can take full economic advantage of the savings from Commission's conservation oriented rate structure.

Who will be impacted? (cont.)

Customer Affordability Program

- MEAP program.
- 17,800 households in the two counties received MEAP assistance in FY'13.
- Program would cost WSSC up to \$2.5 million annually.

When Will It Be Implemented?

Reconstruction Fee and Recalibrated AMF

- ✓ Briefings for County Executives and County Council Committees – Late July through early August
- ✓ Public meetings in each county – early August
- ✓ Approval by WSSC Commissioners – August
- ✓ Incorporation into Spending Affordability and development of FY'16 Operating Budget in September
- ✓ Effective July 1, 2015

When Will It Be Implemented? (cont.)

Customer Affordability Program

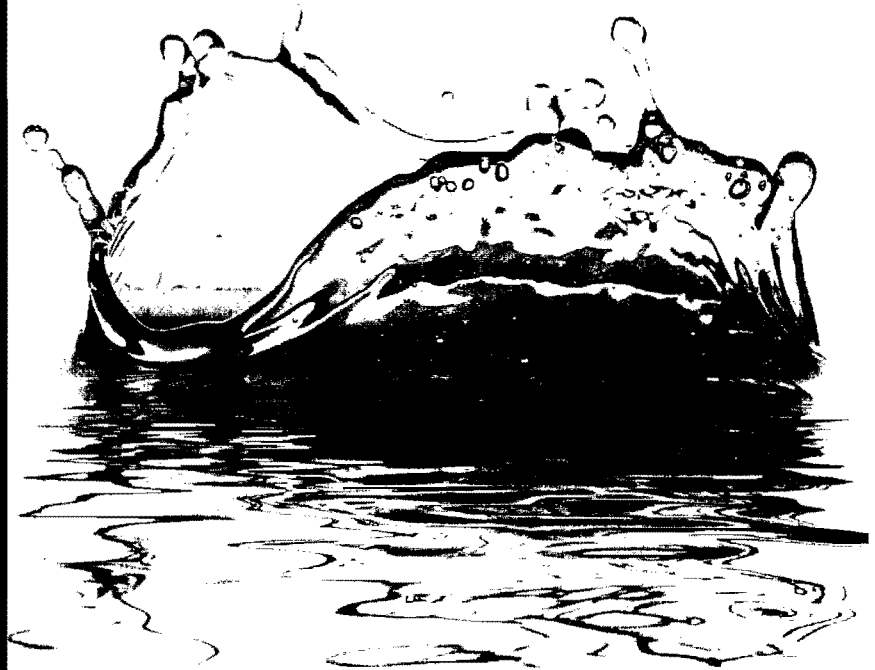
- ✓ Briefings for County Executives and County Council Committees – Late July through early August
- ✓ Public meetings in each county – early August
- ✓ Incorporation into FY'16 Operating Budget
- ✓ Approval by Maryland General Assembly
- ✓ Sign MOU with partner agency
- ✓ Effective October 1, 2015

Questions and Answers



**Washington Suburban
Sanitary Commission**

Water Study Report



January 9, 2014

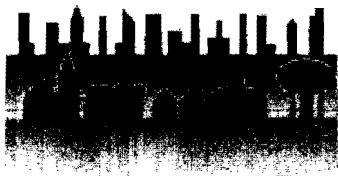
Prepared by



Municipal & Financial Services Group

In Association with





Municipal & Financial Services Group

January 9, 2014

Christopher Cullinan
Acting Chief Financial Officer
Washington Suburban Sanitary Commission
14501 Sweitzer Lane
Laurel, MD 20707

Dear Mr. Cullinan:

The Municipal & Financial Service Group is pleased to submit to the Washington Suburban Sanitary Commission the attached Water and Sewer Rate Study Executive Summary Report. This document provides an overview of the results of our analysis of the cost of providing water and sewer service to the Commission's customers and our recommendations for how the Commission should recover these costs. The study provides a number of recommendations that will increase the financial health and stability of the Commission's operations while equitably charging its customers for water and sewer service.

It has been our distinct pleasure to work with and for the Commission. The assistance provided by the Commission's staff was essential in the completion of the study. The dedication you and other Commission staff providing during the study process should be acknowledged and was vital to the completion and success of the study. Thank you for the opportunity to work with and for the Washington Suburban Sanitary Commission on this study.

Very truly yours,

David Hyder
Vice President
The Municipal & Financial Services Group

TABLE OF CONTENTS

1. Findings and Conclusions	1
1.1 Revenue Requirements and Affordability Guidelines	1
1.2 Customer and Usage Analysis.....	2
1.3 Existing Rates and Fees and Pricing Objectives	3
1.4 Rate Alternatives.....	4
2. Recommendations	5

This document was prepared to summarize the work performed by the Municipal & Financial Services Group ("MFSG") during the water and sewer cost of service and rate study authorized by the Washington Suburban Sanitary Commission ("WSSC"). The study is predicated on the use of a cash flow analysis to support the pricing of utility services. The cost of service analysis uses a planning period of 10 years (2015 - 2024). This report provides an overview of the study. Comprehensive documentation for the study is provided in a separate technical report, titled the *Water and Sewer Rate Study Technical Report*, dated January 9, 2014.

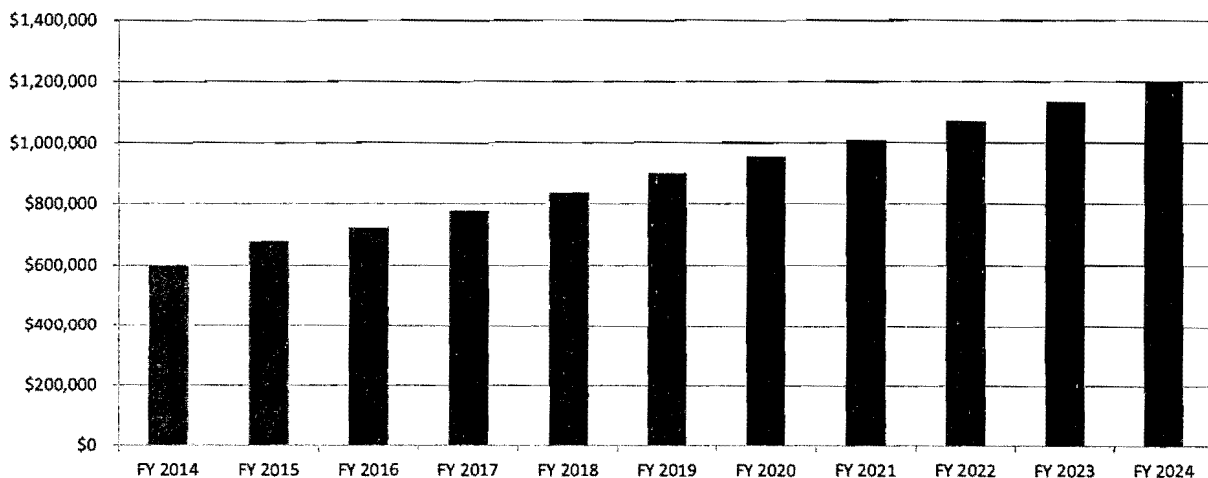
1. Findings and Conclusions

The following section presents a summary of the key findings and conclusions developed during the completion of the study.

1.1 Revenue Requirements and Affordability Guidelines

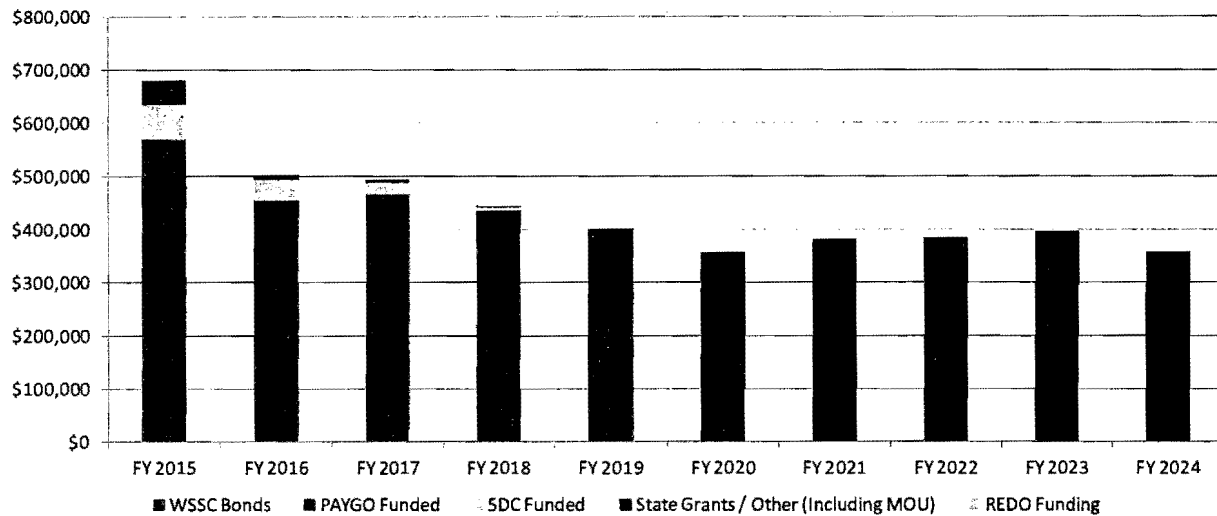
The system revenue requirements constitute the total cost incurred by WSSC to operate and maintain the water and sewer systems. Revenue requirements include operating and maintenance expenses, existing debt service, capital improvement projects (funded with cash or future debt) and contributions to reserves. Exhibit 1.1 shows graphically the projected revenue requirements for the study period.

Exhibit 1.1 - Projected Revenue Requirements (thousands)



As shown in Exhibit 1.1, revenue requirements are expected to steadily increase over the next ten years. The primary driver for the increases in revenue requirements over the period is the tremendous capital investments required within the water and sewer systems. Like many utilities around the United States, WSSC is facing the need to repair and replace infrastructure that is at or nearing the end its useful life. The estimated ten year capital improvements and the anticipated funding sources are shown in Exhibit 1.2.

Exhibit 1.2 - Capital Investments by Funding Source (thousands)



WSSC has developed an annual process of evaluating the financial needs of the water and sewer system. A financial model has been developed internally that is used to evaluate WSSC's finances and to arrive at an annual combined rate adjustment. In the development of MFSG's revenue requirements we evaluated the financial model used by WSSC and the results in comparison to our results of our analysis. In most cases, the results were consistent. To demonstrate the results of our analysis, MFSG calculated the affordability guidelines currently utilized by WSSC using our financial model. Table 1.1 shows MFSG's affordability guidelines based on the rate model that has been developed.

Table 1.1 - WSSC Affordability Guidelines (thousands)

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Combined Rate Increase	6.0%	10.4%	8.8%	8.4%	7.2%
Total Operating Budget	\$678,591	\$721,343	\$775,209	\$834,956	\$895,742
Debt Service Expense	\$227,042	\$250,013	\$267,835	\$282,596	\$292,612
New Debt	\$384,622	\$364,894	\$335,620	\$310,226	\$241,952

1.2 Customer and Usage Analysis

The majority of WSSC revenues are generated from the sale of water and sewer service. Like most utilities in the Northeastern portions of the country, WSSC has experienced an ongoing decline in the volumes of water sold. One of the reasons for the decline in water consumption appears to be the reduction in water usage per account. Based on a detailed review of water usage for each individual customer over the last three years, it was determined that the average usage per residential customer account has declined steadily over this period of time. Table 1.2 presents the average usage by meter size over the last three years.

Table 1.2 - Average Gallons Per Day (FY 2010 – FY 2012)

Meter Size	# of Meters	FY 2010 Average (GPD)		FY 2011 Average (GPD)		FY 2012 Average (GPD)	
		Commercial	Residential	Commercial	Residential	Commercial	Residential
5/8"	144,318	171	155	172	154	164	150
3/4"	238,612	193	165	198	164	193	159
1"	47,363	490	202	491	202	470	194
1 1/2"	4,453	1,182	1,609	1,175	1,622	1,142	1,623
2"	3,763	1,906	3,064	1,887	3,088	1,937	3,088
3"	924	4,979	10,687	5,076	10,998	4,856	11,069
4"	638	6,650	14,990	6,783	15,714	6,790	15,338
6"	1,146	10,540	27,064	10,390	27,298	8,389	26,043
8"	644	25,474	46,579	27,277	46,063	25,351	43,359
10"	119	38,407	84,288	41,210	85,120	36,946	83,511
12"	6	67,974	-	79,311	-	70,969	-

The vast majority of the Commission's customers are residential with 5/8" or 3/4" meters. As the table shows, there has been a steady decline in usage per account over the last three years, as highlighted in red.

Given the historical reduction in water consumption, an accurate water demand forecast is a critical component of the financial plan. To develop the forecast, PEER Consultants, serving as a sub-consultant to MFSG, completed a review and update of the last demand forecasts developed internally by WSSC staff including the *2011 Water Production Projection Report* and the *2011 Wastewater Flow Projections Report*. Based on the analysis completed by PEER, future demands will be approximately 5% lower than those previously developed. Customer growth is anticipated to grow at approximately 0.5% annually, which equates to rough 450 new accounts per year, and total water sales is estimated to decrease annually at 0.5%.

1.3 Existing Rates and Fees and Pricing Objectives

WSSC currently bills all its residential customers on a quarterly basis and commercial customers on both a quarterly and a monthly basis. All customers are charged an account maintenance fee (AMF) and billed usage charges based on metered water usage. The vast majority of WSSC's revenues are generated from usage charges, representing approximately 96% of total revenues. As a result, WSSC is currently highly dependent on revenues that vary with customer usage patterns (variable revenues). The fixed revenue collected through the account maintenance fee represents just a small fraction of the total revenues. The industry's "normal" percentage of revenue collected from fixed fees and charges typically ranges from 10% to 30%. Given the minimal amount of fixed revenues generated within WSSC's current rate structure, actions should be taken to increase the amount of fixed revenue generated. This action to mitigate revenue decline is even more important given the likely decrease in per household consumption.

As part of the work completed by the Bi-County Infrastructure Working Group, twelve common pricing objectives were reviewed and ranked by the Working Group members. The top ranked objectives included financial sufficiency, defensibility, revenue stability, rate stability, affordability

to disadvantage customers, minimization of customer impacts and cost of service based allocations. These objectives along with our industry expertise were used to evaluate modifications to the Commission's current rates and fees as well to assist with evaluation of additional fees.

1.4 Rate Alternatives

MFSG completed an assessment of the current WSSC rates and fees and, in light of pricing objectives, developed several rate structure alternatives that were considered during the course of the study. In addition to reviewing the current rate structure, MFSG evaluated the opportunity for the Commission to implement a separate fee to fund expenditures related to water and sewer line reconstruction within each system. The following findings and conclusions were developed based on our review existing rates and fees and the addition of a reconstruction fee.

- The fixed portion of revenues generated by the current rate structure as a percentage of total revenues is extremely low at approximately 4%. As a result, WSSC's revenues are highly dependent on water consumption which continues to decline and are subject to a high level of volatility.
- The concept of a separate fee for the funding of system reconstruction is an approach that merits serious consideration. The adoption of a reconstruction fee would provide a dedicated funding source for the tremendous reconstruction investments facing the Commission. The separation of the costs associated with reconstruction and the supporting fee will provide for greater transparency and increased customer understanding. The adoption of a reconstruction fee in the form of a fixed charge would assist in increasing the portion of the Commission's revenues that are fixed.
- The Commission established the current account maintenance fee (AMF) in 1990 and the fee has not been adjusted in magnitude or structure since its inception. The fee is assessed based on the size of a customer meter and billed quarterly or monthly depending on the customer type. The fee is intended to recover the cost of provide customer account services (billing, meter reading, meter replacement) and private fire protection. The current AMF does not generate sufficient revenues to recover the cost providing these services. The AMF should be updated to recover the costs and to ensure that the cost of service allocations are appropriate.
- The current usage rate structure used by the Commission is markedly unique among utilities around the United States. While inclining block rates are fairly common, most utilities step customers' usage successively through the blocks (e.g. the first quantities of metered water is priced at the first tier, the second quantities of water is priced at the second tier and so on). Additionally, most utilities with inclining block rates maintain anywhere from three to six blocks, as compared to the Commission's rate design which includes sixteen tiers. Based on our review of the current rate structure we were able to

identify several benefits associated with the current structure as well as some areas of concern (primarily from a customer perception perspective). As a result, a review of alternative rate structures was deemed appropriate. However, the alternative rate structures considered were limited to those that the Commission could actually implement. The alternatives considered included a consolidated tier structure (reducing the tiers from 16 to 8) and a uniform structure (essentially one tier) for all customers.

2. Recommendations

The following section presents a summary of the recommendations developed during the development of the cost of service and rate study.

- We recommend that WSSC increase water and sewer rates and fees over the next five years to fund the ongoing operations of the system. The increases are necessary to ensure the ongoing operation of the system and specifically to meet coverage requirements on debt service obligations and to maintain cash reserves.
- We recommend that the amount of revenue that is generated from fixed fees be increased to reduce the Commission's dependency on water usage and to reduce volatility in cash flow.
- We recommend that WSSC implement a separate reconstruction fee to fund the necessary capital investments in water and sewer line reconstruction. The reconstruction fee should be:
 - Assessed as a fixed fee that will provide a stable stream of revenue to fund the debt service associated with line reconstruction. A volumetric charge would result in a less stable revenue stream and would be subject to the ongoing reduction in water usage among WSSC customers.
 - Assessed by meter size using the average usage by meter size as the basis for the differential between meter sizes. This approach will appropriately allocate the cost of reconstruction based on the customer's share of reconstruction costs.
 - Based on the average cost of debt service over the next five years, allowing for a reconstruction fee that will remain the same for a five year period. This approach will provide predictability for WSSC and the customer over a five year period and increase the portion of WSSC's revenues that are fixed.
- The recommended reconstruction fees are presented in Table 1.3.

Table 1.3 - Recommended Reconstruction Fee (FY 15 - 19)

Meter Size / Type	Quarterly Reconstruction Fee (FY 15 - FY19)
5/8"	\$11.00
3/4"	12.00
1"	14.00
1 1/2" - Residential	119.00
1 1/2"	84.00
2"	185.00
3"	585.00
4"	813.00
6"	1,265.00
10"	4,425.00
Flow Meter - 4"	499.00
Flow Meter - 6"	616.00
Flow Meter - 8"	2,524.00
Flow Meter - 10"	2,714.00
Flow Meter - 12"	5,214.00

- We recommend that the Commission adopt a cost of service based AMF that will recover the five-year average cost of providing account maintenance services and fire protection. The updated AMF would meeting nearly all of the pricing objectives, specifically meeting the top four objectives by providing increased revenue and rate stability within a structure that can easily be defended. The recommended AMF is shown in Table 1.4.

Table 1.4 - Recommended Account Maintenance Fee (FY 15 - 19)

Meter Size / Type	Customer Services	Meter Services	Fire Protection	Total Quarterly AMF FY 15 - 19
5/8" through 1 1/2" - Residential	\$14.00	\$2.00	-	\$16.00
1 1/2"	14.00	10.00	-	24.00
2"	14.00	13.00	-	27.00
3"	14.00	52.00	-	66.00
4"	14.00	128.00	-	142.00
6"	14.00	140.00	-	154.00
10"	14.00	232.00	-	246.00
Detector Check - 2"	14.00	13.00	\$6.00	33.00
Detector Check - 4"	14.00	128.00	35.00	177.00
Detector Check - 6"	14.00	140.00	101.00	255.00
Detector Check - 8"	14.00	232.00	215.00	461.00
Detector Check - 10"	14.00	232.00	387.00	633.00
Flow Meter - 4"	14.00	133.00	35.00	182.00
Flow Meter - 6"	14.00	178.00	101.00	293.00
Flow Meter - 8"	14.00	223.00	215.00	452.00
Flow Meter - 10"	14.00	281.00	387.00	682.00
Flow Meter - 12"	14.00	350.00	625.00	989.00

- Based on our review of the current usage rate structure and consideration of alternative rate structures, we recommend that at this time that the Commission maintain its current user rate structure. While the current rate structure is unique and appears complicated, we do not believe that there are compelling reasons to change it. We were not able to identify any glaring issues with the current rate structure, nor were alternatives identified that would help to achieve the stated pricing objectives. Changes to the current structure would have significant impacts on WSSC customers. Without compelling reasons to change the structure, we do not believe it is in the Commission's best interest to impact its customers just for the sake of trying to look more like other utilities. The recommended rates for FY 2015 are presented below. It should be noted that these rates account for the increases in revenues from the recommended reconstruction fee and AMF. The rates are increased approximately 4.5% as compared to the proposed budget of 6% due to the increased revenues from the reconstruction and account maintenance fees.

Table 1.5 - Recommended Usage Rates (FY 2015)

Average Daily Consumption (Gallons Per Day)	FY 2015 Usage Rate per 1,000 Gallons
0 – 49	\$7.33
50 – 99	8.39
100 – 149	9.54
150 – 199	10.88
200 – 249	12.21
250 – 299	13.22
300 – 349	14.06
350 – 399	14.71
400 – 449	15.14
450 – 499	15.58
500 – 749	15.89
750 – 999	16.25
1,000 - 3,000	16.79
4,000 - 6,999	17.18
7,000 - 8,999	17.41
9,000 & Greater	17.81

WSSC Rate Increase History and Revenue and Expenditure Trends

During the Council's FY15 WSSC budget review, Council Staff provided the following information regarding WSSC rate increases and expenditure and revenue trends. This information illuminates both the challenging fiscal situation WSSC has experienced over the past 20 years as well as the significant increases in customer impact over that same time.

Rate Increase History

The Council periodically receives correspondence from WSSC customers concerned about WSSC's rate increases. The chart below presents WSSC's rate increases over the past 20 years.

Spending Control Limits & Actual Rates

Fiscal Year	Approved* Limit	Actual	Fiscal Year	Approved* Limit	Actual
FY96	3.0%	3.0%	FY06*	2.5%	2.5%
FY97	3.0%	3.0%	FY07	3.0%	3.0%
FY98	3.0%	2.9%	FY08	5.3%	6.5%
FY99	2.0%	0.0%	FY09*	9.7%	8.0%
FY00	1.5%	0.0%	FY10*	9.5%	9.0%
FY01	0.0%	0.0%	FY11*	9.9%	8.5%
FY02*	2.0%	0.0%	FY12*	9.9%	8.5%
FY03	0.0%	0.0%	FY13	8.5%	7.5%
FY04	0.0%	0.0%	FY14*	8.0%	7.25%
FY05	3.0%	3.0%	FY15	6.0%	5.5%

*No agreement was reached in FYs 02,06,09,10,11,12, and 14. Limits shown for those years reflect Montgomery County Council recommendations.

Rate increases have been particularly high since FY08, ranging from 6.5 percent to as high as 9.0 percent. Complaints often focus on how these rates are significantly higher than inflation and higher than other water and sewer utilities in the region over the same period of time.

The compounded consumer price index (CPI) for the region since November 1996 to November 2013 was 53.2 percent, while rates have increased at a compounded amount of 102 percent from FY96 through FY14.

Interestingly, if WSSC were to have had the same overall compounded increase over the last 20 years, with the same rate increase every year, the rate increase would have been about 3.75 percent per year. However, rate increases from FY96 through FY07 were well below this level (including six straight years without a rate increase).

Council Staff asked WSSC for comparative rate increases for other utilities. The chart on ©35 shows rate increases since 2002 for a number of utilities. The utilities are clustered into categories of 70 to 89 percent, 90 to 129 percent and 130 to 233 percent. WSSC's rate increase since 2002 is 85 percent. The regional CPI during that time was 34.4 percent. The chart shows that many water and sewer utilities have increased rates well above the CPI in the last decade.

WSSC's rate increase over that time is not the lowest, but is in the lower third of the utilities presented.

Another reason for WSSC's recent large rate increases is WSSC's flat water production experience, resulting in the vast bulk of WSSC's revenue (water/sewer rate revenue) not increasing, and even declining, in some years. Water production has grown only 1.2 percent since FY2000. This issue was noted earlier and has caused a bump in rates, especially in recent years.

WSSC's expenditures since FY2000 have increased about 58.6 percent, a bit higher than the CPI over the same period (about 45.9 percent) but not nearly as much as rates have increased. **This is further evidence that much of the rate pressure above CPI stems from revenue trends, not expenditure trends.**

National Trends – Rate Increases Since 2002

